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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,882	07/24/2001	Yutaka Tsuda	110170	3322

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EXAMINER	
WHIPKEY, JASON T	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/910,882	TSUDA, YUTAKA	
	Examiner	Art Unit	
	Jason T. Whipkey	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-10,13-16 and 18* is/are allowed.

6)☒ Claim(s) *1-4 and 11* is/are rejected.

7)☒ Claim(s) *12 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. Applicant's arguments, see pages 2-3, filed September 30, 2005, with respect to the rejection of claims s 1-4 and 11 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Tanaka and Ogina.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (U.S. Patent No. 5,852,467) in view of Tanaka (Japanese Patent Publication No. 11-341414).

Regarding **claim 1**, Ogino discloses an electronic camera (see Figure 5) comprising:

a volatile memory (internal memory 6) that has a capacity sufficient to temporarily maintain image data of a plurality of images to be transferred to an external memory (external storage device 11a; see column 7, lines 52-64);

Note that a volatile memory inherently holds data as long as power is applied to it. Power is inherently not applied when a battery loses its charge.

Ogino is silent with regard to detecting a remaining capacity of a battery and displaying the maintainable time of stored image data.

Tanaka discloses an imaging device (see Drawing 3), including:

a detector (control section 34) that detects a remaining capacity of a battery (see paragraph 66) for supplying power to memory (frame memory 24); and

a maintain time calculator (control section 34) that calculates a maintainable time of the image data maintained in volatile memory based on the remaining capacity detected by said detector (see paragraphs 66-67 and note that since data in a volatile memory is maintained as long as a power source is maintained, image data may be maintained only for the time calculated).

As described in paragraphs 66-68, an advantage of calculating a maintainable time is that a user can be warned that a battery will cease operation prior to filling a storage medium to capacity. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Ogino's camera include the detector and maintainable time calculator described by Tanaka.

Regarding **claim 2**, Tanaka discloses:

a display (LCD 5) for displaying the maintainable time (see paragraph 67 and Drawing 7).

Regarding **claim 3**, Ogino discloses:

a connecting portion (interface circuit 10) communicating image data with the external memory.

Regarding **claim 4**, Tanaka discloses:

the external memory comprises a recording medium detachably accommodated to the camera (see column 7, lines 47-51), and said connecting portion comprises a connector (if a memory card [see *id.*] is used, a connector is inherently present).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (U.S. Patent No. 5,018,017) in view of Tanaka.

Regarding **claim 11**, Sasaki discloses an electronic camera (figures 6A and 6B) comprising:

a volatile memory (buffer memory 31_6) that has a capacity sufficient to temporarily maintain image data (memory 31_6 loses its contents when power is lost; see column 10, lines 33-51) of a plurality of images (the capacity of memory 31_6 may be large enough to store the data of more than one frame; see column 10, lines 33-36) to be transferred to an external memory of the camera (memory card 15);

a recording mode selector (CPU 24_1) that selects one of a first recording mode for transferring and recording the image data to the external memory after maintaining the image data in said volatile memory temporarily (image data is written from buffer memory 31_6 into memory card 15 if sufficient space exists on the memory card, as determined by CPU 24_1; see column 10, lines 60-68, and column 11, lines 34-45) and a second recording mode for recording the image data in said volatile memory (if space is unavailable, the image data is held in buffer memory 31_6; see column 10, lines 41-44).

Sasaki is silent with regard to detecting, calculating, and displaying a remaining time for holding the image data in memory.

Tanaka discloses:

a detector (control section 34) that detects a remaining capacity of a battery (see paragraph 66) for supplying power to memory (frame memory 24); and

a maintain time calculator (control section 34) that calculates a maintainable time of the image data maintained in volatile memory based on the remaining capacity detected by said detector (see paragraphs 66-67 and note that since data in a volatile memory is maintained as long as a power source is maintained, image data may be maintained only for the time calculated); and

a display (LCD 5) for displaying the maintainable time (see paragraph 67 and Drawing 7) when the second recording mode is selected by said recording mode selector (the time remaining is displayed at all times; see paragraphs 66-67).

As described in paragraphs 66-68, an advantage of calculating a maintainable time is that a user can be warned that a battery will cease operation prior to filling a storage medium to capacity. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Ogino's camera include the detector and maintainable time calculator described by Tanaka.

Allowable Subject Matter

6. Claims 5-10, 13-16, and 18 are allowed.

Regarding claims 5-10 and 13-16, no prior art could be located that teaches or fairly suggests an electronic camera that calculates a time during which a camera is operational and a volatile memory is maintained by subtracting a maintain capacity, which is calculated based on a desired data maintain time set by a setter, from a detected battery capacity.

Regarding claim 18, no prior art could be located that teaches or fairly suggests an electronic camera that calculates (a) a time during which a volatile memory can be maintained based on a detected battery charge, and (b) a time during which a camera operation can be maintained based on a detected battery charge, and displays both on a display.

7. Claims 12 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding both claims, no prior art could be located that teaches or fairly suggests an electronic camera that calculates a time during which a camera is operational and a volatile memory is maintained by subtracting a maintain capacity, which is calculated based on a desired data maintain time set by a setter, from a detected battery capacity and displays both the memory maintainable time and calculated camera operational time on a display.

Conclusion

8. Applicant's amendment on March 3, 2005, necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:00 A.M. to 5:30 P.M. eastern daylight time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu, can be reached at (571) 272-7320. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTW

JTW
November 9, 2005

NGOC-YEN VU
PRIMARY EXAMINER